Herbs of Concern Story by COL Allen Almquist

NE-third of Americans are estimated to use herbs as alternative medicine. While some of these "natural" supplements may be safe, others may have harmful effects.

Glucosamine and chondroitin sulfates are natural substances widely acclaimed to relieve osteoarthritis, or inflammation of the joints. Depending on the disease's severity, pain may decrease with such medications as nonsteroidal anti-inflammatory drugs (NSAIDs), simple pain medications and various other third-line agents. If these provide no relief, patients may try glucosamine and chondroitin.

These supplements are derived from such marine-animal skeletons as shark cartilage, and can also be produced synthetically. Since human joints are composed of similar glycoproteins and because glucosaminoglycans are found in human cartilage, it is believed that glucosamine and chondroitin stimulate the formation of, or replace, parts of joints lost to osteoarthritis.

COL Allen Almquist is the chief of Madigan Medical Center's Department of Pharmacy at Fort Lewis, Wash.

Some studies indicate these herbs have promising results, while others show no advantages when compared to placebos (sugar pills).

Glucosamine is available in three forms: n-acetyl, hydrochloride and sulfate. N-acetyl is not recommended, and evidence suggests sulfate and hydrochloride to be only "possibly safe" when used on a short-term basis.

Glucosamine has been shown to be of little benefit for patients with severe osteoarthritis. Side effects include nausea, diarrhea or constipation, as well as drowsiness and headache. Diabetics should be aware that glucosamine may reduce the amount of insulin naturally secreted in the body. Individuals who take oral antidiabetic medications such as glipizide or glyburide should consult with their physicians before taking glucosamine supplements.

Chondroitin can be considered, at best, as "likely effective" in reducing osteoarthritis pain. Side effects include nausea, diarrhea or constipation, edema of the eyelids or lower extremities, and hair loss.

Chondroitin may interact with such blood thinners as warfarin (Coumadin).

clopidogrel (Plavix) or ticlopidine (Ticlid). Aspirin and NSAIDs have similar effects, so patients taking any of these drugs should consult with their physicians before starting chondroitin supplements.

A combination of chondroitin and glucosamine — both of which are available over the counter at \$50 to \$100 for a one-month supply — may reduce the amount of NSAIDS individuals need for pain. The cost is an important factor in weighing the benefits of these supplements, and individuals who are allergic to shellfish should use only the synthetic versions.

A study by the National Institutes of Health will soon weigh the benefits of glucosamine and chondroitin. As a precaution, patients should always consult with their physicians or pharmacists before taking dietary supplements, since the substances are not tested or approved by the Food and Drug Administration. While some supplements may be considered generally safe, they may pose health risks to individuals with certain health conditions.

